

CLAIMS

1. A method of preventing or treating an inflammatory disease or condition in a patient comprising administering to the patient a therapeutically effective amount of:
 - (a) a glutathione donor; and
 - 5 (b) 5-amino 4-imidazolecarboxamide ribotide (AICAR), a 3-hydroxy-3-methylglutaryl-coenzymeA (HMG-CoA) reductase inhibitor, D-threo-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol HCl (D-PDMP), or 1,5-(butylimino)-1,5-dideoxy-D-glucitol (Miglustat), or a derivative thereof.
- 10 2. The method of claim 1, further comprising determining a patient is in need of the prevention or treatment.
3. The method of claim 2, wherein determining a patient in need of the prevention or treatment comprises determining whether a patient is at risk for developing an inflammatory disease or condition.
- 15 4. The method of claim 3, wherein determining whether a patient is at risk for developing an inflammatory disease or condition comprises taking a family history or a patient history.
5. The method of claim 1, wherein the glutathione donor is formulated in a pharmaceutically acceptable vehicle.
6. The method of claim 1, wherein AICAR, the HMG-CoA reductase inhibitor, D-PDMP, or Miglustat is formulated in a pharmaceutically acceptable vehicle.
- 20 7. The method of claim 1, wherein GSNO is administered to the patient before, during, or after AICAR, an HMG-CoA reductase inhibitor, D-PDMP, or Miglustat is administered to the patient.
8. The method of claim 1, wherein AICAR, an HMG-CoA reductase inhibitor, D-PDMP, or Miglustat is administered to the patient before, during, or after GSNO is administered to the patient.
- 25 9. The method of claim 1, wherein the glutathione donor is administered to the patient before, during, and after AICAR, an HMG-CoA reductase inhibitor, D-PDMP, or Miglustat is administered to the patient.

10. The method of claim 1, wherein AICAR, an HMG-CoA reductase inhibitor, D-PDMP, or Miglustat is administered to the patient before, during, and after the glutathione donor is administered to the patient.
11. The method of claim 1, wherein the glutathione donor is a molecule that comprises glutathione.
- 5 12. The method of claim 1, wherein the glutathione donor is a precursor molecule to glutathione.
13. The method of claim 1, wherein the glutathione donor is S-nitroglutathione (GSNO), L-2-oxo-thiazolidine 4-carboxylate (Procysteine), N-acetyl cysteine (NAC), or N-acetyl glutathione.
14. The method of claim 13, wherein the glutathione donor is S-nitroglutathione (GSNO).
15. The method of claim 1, wherein the glutathione donor and AICAR are administered to the patient.
- 10 16. The method of claim 1, wherein the glutathione donor and an HMG-CoA reductase inhibitor are administered to the patient.
17. The method of claim 16, wherein the HMG-CoA reductase inhibitor is a statin.
18. The method of claim 17, wherein the statin is atorvastatin, lovastatin, rosuvastatin, fluvastatin, pravastatin, simvastatin, or cerivastatin.
- 15 19. The method of claim 18, wherein the statin is atorvastatin.
20. The method of claim 1, wherein the glutathione donor and D-PDMP are administered to the patient.
21. The method of claim 1, wherein the glutathione donor and Miglustat are administered to the patient.
22. The method of claim 1, wherein the glutathione donor, AICAR, an HMG-CoA reductase inhibitor, D-PDMP, and Miglustat are administered to the patient.
- 20 23. The method of claim 1, wherein the inflammatory disease or condition is stroke, X-adenoleukodystrophy (X-ALD), cancer, septic shock, adult respiratory distress syndrome, myocarditis, arthritis, an autoimmune disease, an inflammatory bowel disease, an inflammatory nervous system disease, an inflammatory lung disorder, an inflammatory eye disorder, a chronic inflammatory gum disorder, a chronic inflammatory joint disorder, a skin disorder, a bone disease,
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a heart disease, kidney failure, a chronic demyelinating disease, an endothelial cell disease, a cardiovascular disease, obesity, a common cold, lupus, sickle cell anemia, diabetes, or a neurodegenerative disease.

24. The method of claim 23, wherein the inflammatory disease or condition is stroke.

5 25. The method of claim 23, wherein the inflammatory disease or condition is a neurodegenerative disease.

10 26. The method of claim 25, wherein the neurodegenerative disease is Alzheimer's disease, Parkinson's disease, Landry-Guillain-Barre-Strohl syndrome, multiple sclerosis, viral encephalitis, acquired immunodeficiency disease (AIDS)-related dementia, amyotrophic lateral sclerosis, brain trauma, or a spinal cord disorder.

27. The method of claim 1, further comprising administering a second therapy used to treat or prevent an inflammatory disease or condition.

28. The method of claim 1, wherein the glutathione donor is comprised in a pharmaceutically acceptable composition.

15 29. The method of claim 1, wherein the AICAR, the HMG-CoA reductase inhibitor, the D-PDMP, or the Miglustat is comprised in a pharmaceutically acceptable composition.

30. The method of claim 1, wherein the glutathione donor and the AICAR, the HMG-CoA reductase inhibitor, the D-PDMP, or the Miglustat, are comprised in separate compositions.

20 31. The method of claim 1, wherein the glutathione donor and the AICAR, the HMG-CoA reductase inhibitor, the D-PDMP, or the Miglustat, are comprised in the same composition.

32. The method of claim 1, wherein the glutathione donor is not GSNO.

33. A composition comprising:

(a) a glutathione donor; and

25 (b) 5-amino 4-imidazolecarboxamide ribotide (AICAR), a 3-hydroxy-3-methylglutaryl-coenzymeA (HMG-CoA) reductase inhibitor, D-threo-1-Phenyl-2-decanoylamino-3-morpholino-1-propanol HCl (D-PDMP), or 1,5-(butylimino)-1,5-dideoxy-D-glucitol (Miglustat), or a derivative thereof.

34. The composition of claim 33, further defined as a pharmaceutically acceptable composition.
35. The composition of claim 33, wherein the glutathione donor and the AICAR, the HMG-CoA reductase inhibitor, the D-PDMP, or the Miglustat are formulated in a pharmaceutically acceptable vehicle.
- 5 36. The composition of claim 33, wherein the glutathione donor is S-nitroglutathione (GSNO), L-2-oxo-thiazolidine 4-carboxylate (Procysteine), N-acetyl cysteine (NAC), or N-acetyl glutathione.
37. The composition of claim 36, wherein the glutathione donor is S-nitroglutathione (GSNO).
38. The composition of claim 33, wherein the composition comprises a glutathione donor and AICAR.
39. The composition of claim 33, wherein the composition comprises a glutathione donor and an HMG-CoA reductase inhibitor.
- 10 40. The composition of claim 33, wherein the HMG-CoA reductase inhibitor is a statin.
41. The composition of claim 40, wherein the statin is atorvastatin, lovastatin, rosuvastatin, fluvastatin, pravastatin, simvastatin, or cerivastatin.
42. The composition of claim 41, wherein the statin is atorvastatin.
- 15 43. The composition of claim 33, wherein the composition comprises a glutathione donor and D-PDMP.
44. The composition of claim 33, wherein the composition comprises a glutathione donor and Miglustat.
45. The composition of claim 33, wherein the composition comprises a glutathione donor, AICAR, an HMG-CoA reductase inhibitor, D-PDMP, and Miglustat.
- 20 46. The composition of claim 33, wherein the glutathione donor is not GSNO.
47. A method of preventing or treating an inflammatory disease or condition in a patient comprising administering to the patient a therapeutically effective amount of a glutathione donor, 5-amino 4-imidazolecarboxamide ribotide (AICAR), a statin, D-PDMP, or Miglustat, or a derivative thereof.
- 25 48. A pharmaceutically acceptable composition comprising a glutathione donor and a statin, or derivatives thereof.

49. The pharmaceutically acceptable composition of claim 48, wherein the glutathione donor is S-nitroglutathione (GSNO), L-2-oxo-thiazolidine 4-carboxylate (Procysteine), N-acetyl cysteine (NAC), or N-acetyl glutathione.
50. The pharmaceutically acceptable composition of claim 49, wherein the glutathione donor is S-nitroglutathione (GSNO).
51. The pharmaceutically acceptable composition of claim 50, wherein the statin is atorvastatin, lovastatin, rosuvastatin, fluvastatin, pravastatin, simvastatin, or cerivastatin.
52. The pharmaceutically acceptable composition of claim 51, wherein the statin is atorvastatin.
53. The pharmaceutically acceptable composition of claim 48, wherein the glutathione donor is L-2-oxo-thiazolidine 4-carboxylate (Procysteine), N-acetyl cysteine (NAC), or N-acetyl glutathione.
54. The pharmaceutically acceptable composition, wherein the glutathione donor is not GSNO.